REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Information Disclosure Statement

Applicants direct the Examiner's attention to the Information Disclosure Statement submitted concurrently herewith, and respectfully request consideration of the same.

Claim Amendments

Claims 39 and 40 have been amended to recite that the composition is capable of retaining the amorphicity of said amorphous cefditoren pivoxil in aqueous medium for at least **two days**. Support for these amendments is found in Examples 1-5 and Table 2 of the specification.

Claim 33 has been cancelled, without prejudice or disclaimer.

Patentability Arguments

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Rejection Under 35 U.S.C. § 103(a)

Claims 1-19, 32-34 and 39-41 are rejected under 35 U.S.C.§103(a) as being unpatentable over Onodera et al. (U.S. Patent 6,486,149) in view of Nakamura (Foods and Food Ingredient Journal of Japan, 1999, Vol. 180, pp. 1).

This rejection is respectfully traversed.

Firstly, the Examiner states in the Office Action that the claimed invention is different from the Onodera et al. reference (US Patent 6,486,149), and contends that the differences are obvious to those skilled in the art in light of the Nakamura reference (FFI Journal No. 180 (1999)).

Specifically, the Examiner states on page 5 of the Office Action that *"one of ordinary*

skill in the art would have found it obvious to add sucrose fatty acid ester to the composition of Onodera since Nakamura teaches that sucrose fatty acid ester (SE) is able to inhibit the formation of crystals in compositions."

Applicants respectfully disagree with the Examiner.

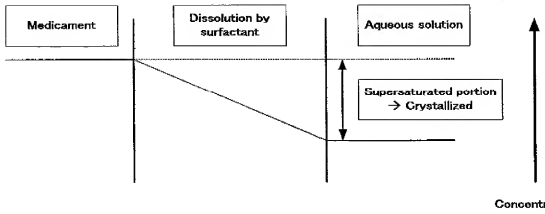
It is true that Nakamura suggests "inhibition of crystal growth in fat" in the summary of the reference. However, Nakamura mentions in section 6-3 of the reference that SE has a function of inhibiting **crystal form transference**, for example, from type II **crystal** of cacao butter to type III **crystal** thereof having a higher melting point. Please refer to Figure 4 of the Nakamura reference. Accordingly, when considering the Nakamura reference as a whole, it suggests inhibition of crystal form transference, but fails to suggest the use of SE for **inhibiting the crystallization of amorphous material**.

On the contrary, as discussed on page 4, lines 20-24 of the clean version of the substitute specification, Applicants have discovered that the crystallization of **amorphous cefditoren pivoxil** was inhibited by simply mixing amorphous cefditoren pivoxil with a sucrose fatty acid ester. The inhibition of crystal form transference is distinct from the inhibition of crystallization of an amorphous material.

Additionally, Applicants direct the Examiner's attention to W0 2009/098963, which discloses experimental data showing that **SE promotes crystal growth in a fat**. Although this WO publication was published after the filing date of the present application, it clearly demonstrates that the general suggestion of Nakamura is not correct. [WO '963 is cited on the Information Disclosure Statement submitted concurrently herewith.]

Further, at the priority date of the present application, it was known in the art that a surfactant promotes crystal growth in an aqueous solution. Specifically, when a medicament containing a surfactant is solved in an aqueous solution, a supersaturated solution of the active ingredient forms on the surface of the medicament. When such a supersaturated solution moves away from the medicament, a supersaturated unsolved portion would generate as a crystal. Therefore, at the time of Applicants' invention, a surfactant was believed to **accelerate the crystal growth** in an aqueous solution.

The concentration of the active ingredient can be illustrated as follows.



The above common technical knowledge is demonstrated by the working examples of the present application. Specifically, when surfactants other than a sucrose fatty acid ester are added, the crystallization of amorphous cefditoren pivoxil is accelerated. Please see the results for Reference Examples 2, 3, and 4 shown in Table 2 of the present specification.

As stated in MPEP 2141, in the Examination Guidelines for Determining Obviousness Under 35 U.S.C.§ 103(a), the key to supporting any rejection under 35 U.S.C.§ 103(a) is the clear articulation of the reason(s) why the claimed invention would have been obvious. In the present case, the Examiner appears to be relying on the rationale that combining prior art elements according to known methods would yield predictable results. MPEP 2143 provides a more detailed discussion, stating that in order to reject a claim based on this rationale, the Examiner must resolve the *Graham* factual inquiries, and then provide the following:
MPEP 2143.

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately;

(3) **a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable;** and

(4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, **and the combination yielded nothing more than predictable results** to one of ordinary skill in the art. The MPEP indicates that **if any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious** to one of ordinary skill in the art.

In the current case, the Examiner asserts that one of ordinary skill in the art would have added SE to the composition of Onodera et al., since Nakamura teaches that SE is able to inhibit the formation of crystals in compositions. However, as explained above, Nakamura fails teach or suggest the use of SE for inhibiting crystallization of amorphous material. Additionally, Applicants have provided evidence that the general suggestion of Nakamura, as relied upon by the Examiner, is inaccurate.

Further still, Applicants have provided evidence that those of ordinary skill in the art, at the time of Applicants' invention, would have expected a surfactant to accelerate crystal growth in an aqueous solution. Accordingly, the expectation of one skilled in the art at the time of Applicants' invention is that the addition of sucrose fatty acid ester (a surfactant) to the composition of Onodera et al. would accelerate crystal growth, not inhibit the same. Therefore, the results achieved by Applicants' invention would not have been predictable to one of ordinary skill in the art. According to MPEP 2143, for this reason alone, the Examiner's rationale for obviousness is inappropriate.

Secondly, the Examiner states on page 6 of the Office Action that *"it is incumbent upon applicant to demonstrate through comparative results that the composition of Onodera does not maintain its amorphous character"*.

Please note that the particles containing amorphous cefditoren pivoxil used in the working examples were prepared by co-precipitating cefditoren pivoxil and a water-soluble polymer in accordance with WO 99/34832, which corresponds to the cited Onodera et al. reference, US Patent No. 6,486,149. (Please refer to page 9, lines 22 to 25 of the clean version

of the substitute specification.) According to Table 1 of the present specification, the composition of Reference Example 1 does not contain any surfactant. Therefore, the composition of Reference Example 1 corresponds to the composition of the Onodera et al. reference.

Table 2 of the present application shows that the composition of Reference Example 1 can retain the amorphicity for only one day while the compositions of Examples 1 to 5 can retain the amorphicity for two days or more. The experimental results disclosed in the specification demonstrate that the presently claimed invention shows remarkable advantages over the prior art in light of the common knowledge mentioned above. (Please also see amended claims 39 and 40.)

Given the above, Applicants respectfully assert that those skilled in the art would not have been motivated to use a sucrose fatty acid ester for inhibiting crystallization of the amorphous cefditoren pivoxil, and therefore the presently claimed invention is not obvious over the cited references.

For these reasons, the invention of claims 1-19, 32-34 and 39-41 is clearly patentable over the cited combination of references. Withdrawal of this rejection is respectfully requested.

Conclusion

Therefore, in view of the amendments and remarks, it is submitted that the ground of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this response, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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May 25, 2010